



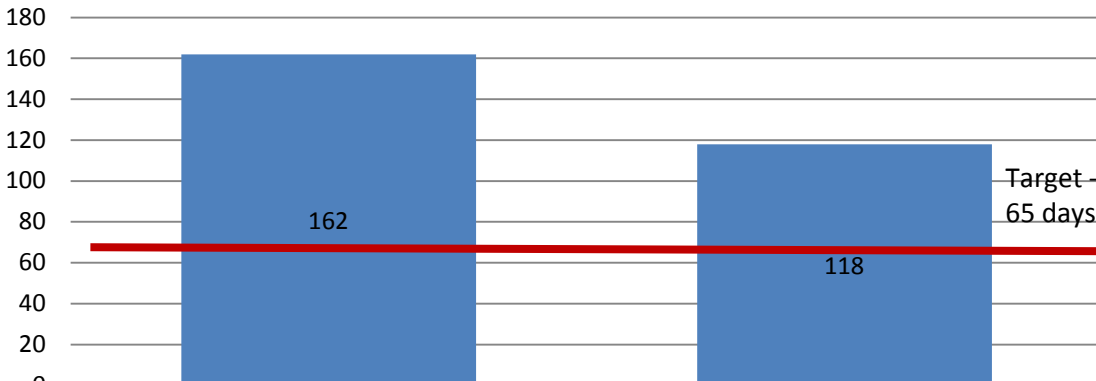
# Reduce the Time it Takes to Review Remedial Investigation and Feasibility Study Reports for Hanford Cleanup

Lean progress report: August 28, 2012

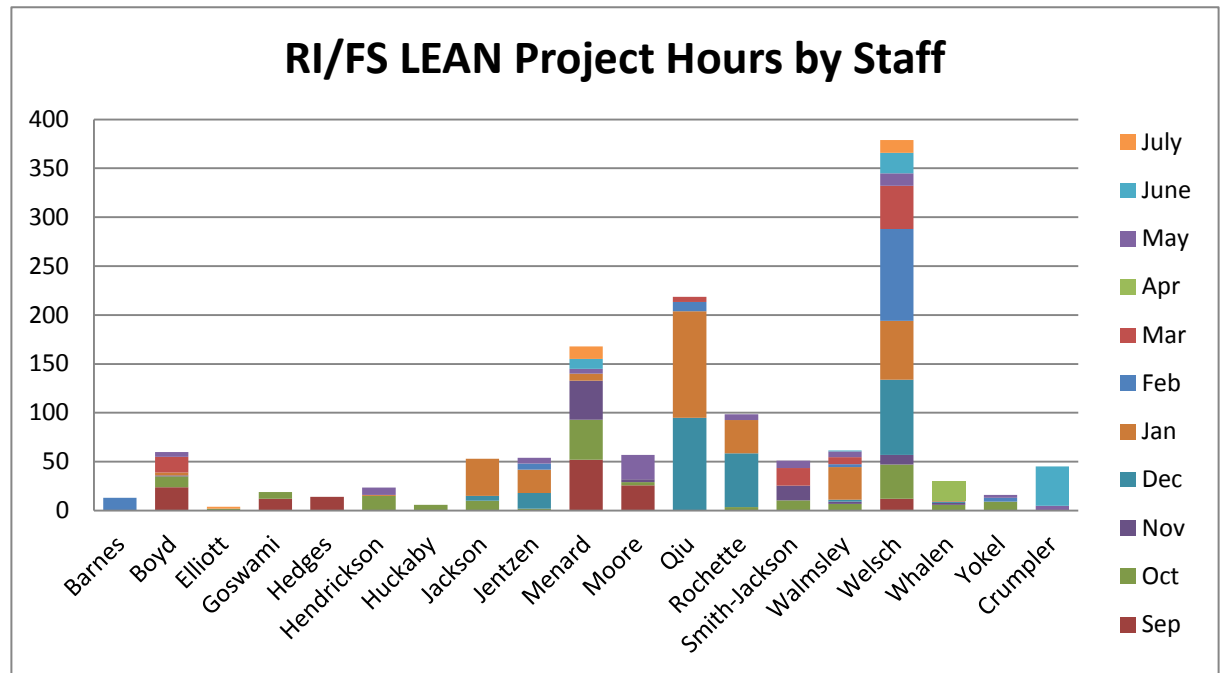
Prepared By: Steve Moore for Jane Hedges

<b>Event Date</b>	September 2011
<b>Background</b>	<p>Ecology, the Environmental Protection Agency (EPA), and the US Department of Energy (USDOE) co-manage the cleanup of the Hanford Nuclear Reservation. Physical challenges include:</p> <ul style="list-style-type: none"> <li>• Groundwater contaminated above drinking water standards, spread out over about 80 square miles (208 square kilometers).</li> <li>• More than 1,700 waste sites.</li> <li>• About 500 contaminated facilities.</li> <li>• More than 53 million gallons of radioactive and chemically hazardous waste in 177 underground storage tanks</li> <li>• 2,300 tons (2,100 metric tons) of spent nuclear fuel in various forms.</li> <li>• About 25 million cubic feet (750,000 cubic meters) of buried or stored solid waste.</li> </ul> <p>Over the next two years, seven Remedial Investigation / Feasibility Study (RI / FS) reports will need to be reviewed and approved by the three agencies. The most recent RI / FS report took six months to process, which includes review of the RI/FS, identification and resolution of issues. Legal deadlines exist for completion of the RI/FS documents and stakeholder expectations are very high so efficiency is essential. Numerous other regulatory documents are also reviewed by Ecology. Executives from the three agencies have identified the need to improve cross-agency plan review and decision making processes.</p>
<b>Project Objective(s)</b>	<p><b>Goals</b></p> <ul style="list-style-type: none"> <li>• Expedite the internal processes within Ecology for review and comment of large comprehensive documents associated with Hanford cleanup.</li> <li>• Improve the flow of work and the resolution process of issues within Ecology's Nuclear Waste Program so documents can be evaluated with less time and fewer resources to facilitate timely cleanup actions</li> <li>• Develop information to share with EPA and USDOE and its contractors on streamlined processes within Ecology to determine if the external agency processes can also benefit from process improvement.</li> </ul> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Reduce the back and forth review of documents.</li> <li>• Streamline decision-making.</li> <li>• Improve the timeliness of the overall process.</li> <li>• Focus staff resources and expertise on what really matters.</li> </ul> <p><b>Performance Outcome Statement:</b></p> <ul style="list-style-type: none"> <li>• Reduce the time to review and comment on RI/FS reports by 60% by <b>March 22, 2012.</b></li> </ul>

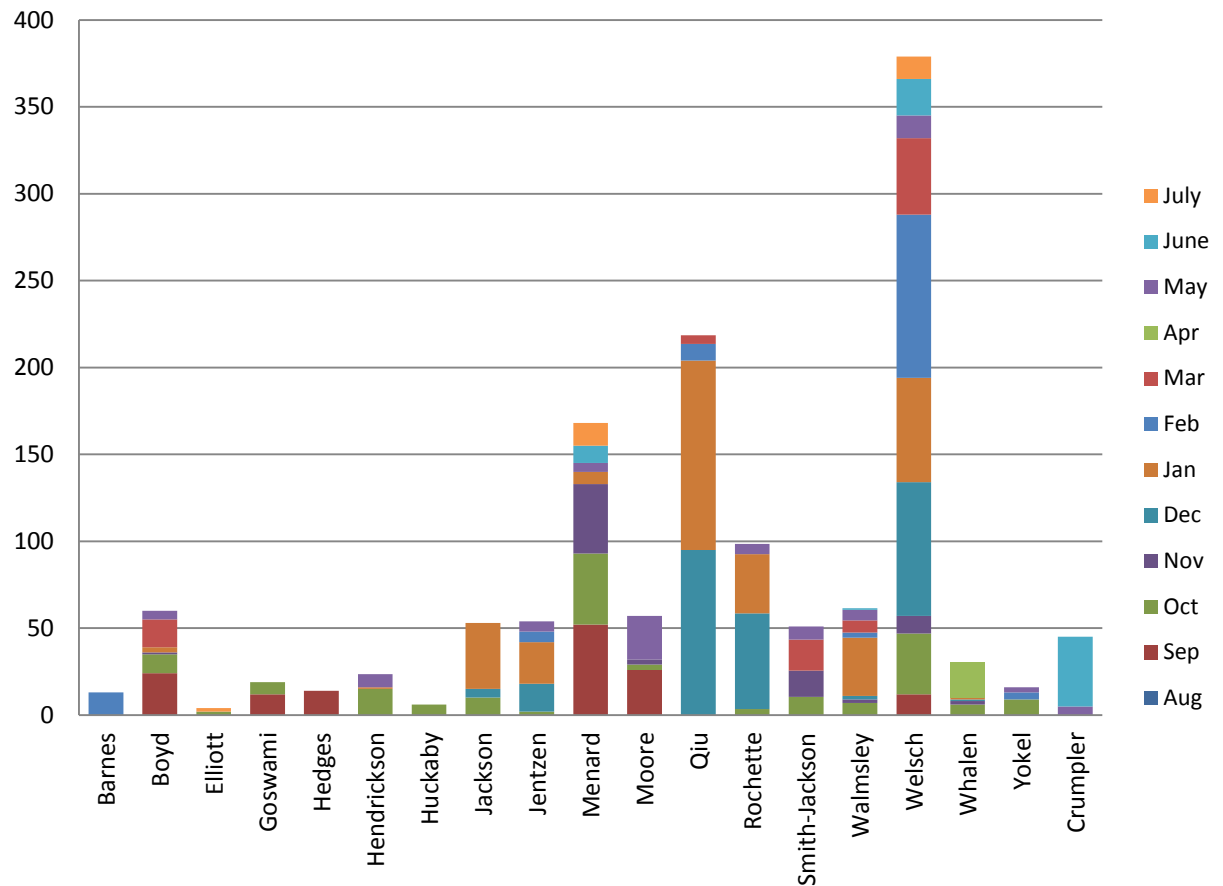
Value Stream Mapping Outcome	Current Situation (Old Way)	Future (New Way)	Benefits
	<b>Preparation and organization of review teams is hampered:</b> <ul style="list-style-type: none"> <li>Uncertain when documents will arrive</li> <li>Insufficient number of documents</li> <li>Unable to plan kick-off mtg</li> </ul>	<ul style="list-style-type: none"> <li>Have contacted USDOE to determine document delivery date and ensure sufficient documents</li> <li>Have planned kick-off meeting on calendars.</li> </ul>	<ul style="list-style-type: none"> <li>Delays due to copying and dissemination should be removed.</li> <li>Review team is established and available for kick-off.</li> </ul>
	<b>Senior Technical Staff are underutilized:</b> <ul style="list-style-type: none"> <li>Not part of initial document review</li> <li>Not utilized in comment development</li> <li>Not consistently used for issue resolution</li> </ul>	<ul style="list-style-type: none"> <li>Senior staff will help perform initial review to identify global policy or technical issues and areas for specific attention.</li> <li>Utilization of senior staff in comment development will be addressed in a future test.</li> <li>Existing processes for issue resolution will be relied on.</li> </ul>	<ul style="list-style-type: none"> <li>The initial document review will enhance guidance provided at the kick-off. It will outline big picture issues and allow commenter's to refer to global comments rather than restating comments</li> </ul>
	<b>Review team given assignments individually:</b> <ul style="list-style-type: none"> <li>Initial review does not capture significant issues.</li> <li>Global and policy level comments not developed or provided.</li> </ul>	<ul style="list-style-type: none"> <li>The review team will be provided detailed Task Assignments at the kick-off meeting.</li> <li>The review team will be provided results of initial review by project leadership and senior technical staff.</li> </ul>	<ul style="list-style-type: none"> <li>The initial document review will enhance guidance provided at the kick-off.</li> <li>It will outline big picture issues and allow commenter's to refer to global comments rather than restating comments</li> </ul>
	<b>Inconsistent Comment Form and Processes:</b> <ul style="list-style-type: none"> <li>Multiple comment form versions in use</li> <li>Review and Comment Response (RCR) form is an un-sortable WORD form.</li> <li>Comment direction inconsistent or non-existent.</li> <li>Commenter's submit comments that are inconsistent</li> </ul>	<ul style="list-style-type: none"> <li>A single comment form (Excel spreadsheet) will be used by all reviewers.</li> <li>Document review guidance will be provided.</li> <li>Comment writing guidance and requirements will be provided.</li> <li>Once comments are generated, issues addressed, and comments consolidated, they will be used to develop the comments for transmittal to USDOE.</li> </ul>	<ul style="list-style-type: none"> <li>Everyone using the same form will improve consistency.</li> <li>Using Excel will enhance sortability.</li> <li>Transferring comments to a final form will be significantly easier (faster) than the time spent dealing with multiple formats previously.</li> </ul>

<b>Activities to Implement Future State</b>	<div><b>Completed</b><ul style="list-style-type: none"><li>• 53 potential improvements were identified in Lean event.</li><li>• 4 metrics were identified</li><li>• 7 “parking lot” items, outside scope of the Lean event, were identified.</li><li>• 17 of the 53 improvements are “Just do it’s” primarily associated with improving coordination with USDOE and preparing Ecology staff for documents review.</li><li>• Our first significant process change test was developed as <b><u>Hold a Kick off meeting</u></b>. This involved 18 of our potential improvements and encompassed many of the significant areas of waste identified in our Lean event.</li><li>• Kick off meeting test – The program conducted a test of the review with a kick-off meeting and associated improvements. Test was completed 3/29/12. It was originally scheduled for 2/10/2012</li><li>• The test was conducted on the 200-IS-1 Workplan – a representative document.</li><li>• We formed three “rapid improvement teams” to further develop Lean event ideas needed for the kick-off meeting test:<ul style="list-style-type: none"><li>○ Consistent comment form – Developed Excel Review Comment Form – Poor results</li><li>○ Document review and comment guidance – Good results</li><li>○ Comment review and consolidation guidance – Mixed Results</li></ul></li><li>• Future State Workshop:<ul style="list-style-type: none"><li>○ The original project was done using the “DOP model” and used “tests” to propose and evaluate process improvements and did not develop a future state.</li><li>○ After our first test (Kick off meeting) the remaining improvements were addressed in a future state workshop held May 31, 2012.....</li></ul></li></ul></div> <div><b>Recent Completion</b><ul style="list-style-type: none"><li>• All items on our potential improvements were prioritized and addressed in our “future state” workshop and followup workgroups:<ul style="list-style-type: none"><li>○ Revised RCR form</li><li>○ Peer review process</li><li>○ Major document review procedures</li></ul></li><li>• All items are completed and ready for implementation as of July 2012, originally March 2012.</li></ul></div>						
<b>Results to Date</b>	<div><div><div><b>NWP Document Review LEAN Test Results</b></div><div><table data-bbox="345 1803 1435 1887"><tr><th></th><th>Original (Basis)</th><th>IS-1 Test</th></tr><tr><td>Days</td><td>162</td><td>118</td></tr></table></div></div></div>		Original (Basis)	IS-1 Test	Days	162	118
	Original (Basis)	IS-1 Test					
Days	162	118					

<b>Kickoff Meeting Evaluation – How our Test went</b> <b>A summary of team member evaluation</b>	1-low satisfaction	5-high satisfaction
Results of preliminary review provided?	3.2	
Global or recurrent issues identified?	3.0	
Team and Individual assignments made and understood by you?	4.5	
Review expectations and guidance provided?	4.2	
Program specialists involved in initial review and kick-off?	3.7	
Review Comment Record form and instructions provided?	2.7	



RI/FS Lean Project Staff hours by Month



Name	Days worked on LEAN or IS1 Test	Hours worked	Days not worked	Hours not worked	Avg Hours/Session	% days worked	% time utilized	
Boyd	2	3	42	349	1.5	5%	1%	Minor participant in IS-1
Goswami	0	0	44	352		0%	0%	Suspect Hours not entered
Hedges	0	0	44	352		0%	0%	Not involved in IS-1
Hendrickson	1	1	43	351	1.0	2%	0%	Suspect Hours not entered
Huckaby	0	0	44	352		0%	0%	Lean Participant - Not IS-1?
Jackson	6	20	38	332	3.3	14%	6%	Med sessions, med time.
Jentzen	15	40	29	312	2.7	34%	11%	Many sessions, shorter sessions
Menard	0	0	44	352		0%	0%	LEAN PM, didn't charge time

	<b>Moore</b>	0	0	44	352		0%	0%	LEAN Dude doesn't charge time	
	<b>Qiu</b>	21	164	23	188	7.8	48%	47%	Many sessions, long sessions	
	<b>Rochette</b>	14	89	30	263	6.4	32%	25%	Many sessions, long sessions	
	<b>Smith-Jackson</b>	0	0	44	352		0%	0%	Lean Participant - Not IS-1?	
	<b>Walmsley</b>	10	45	34	307	4.5	23%	13%	Many sessions, long sessions	
	<b>Welsch</b>	20	104	24	248	5.2	45%	30%	Many sessions, long sessions	
	<b>Whalen</b>	2	2	42	350	1.0	5%	1%	Minor participant in IS-1	
	<b>Yokel</b>	0	0	44	352		0%	0%	Lean Participant - Not IS-1?	
	<b>Z-ES-3 (ex Varljen)</b>	0	0	44	352		0%	0%	Not involved in IS-1	
	<b>Grand Total</b>	34	468							
	<p>The kick-off meeting was planned for October 17, then changed to October 26, and then to November 10 and finally occurred on November 29 due to USDOE delays in providing the 200 IS-1 workplan.</p> <ul style="list-style-type: none"> <li>• The final comments were submitted to USDOE on March 27, 2012 (118 days).</li> <li>• We surveyed team members for qualitative thoughts on the kick-off meeting.</li> <li>• We tracked reviewers actual work and performance during the review (quantitative (time) and qualitative (survey/comments/consolidator evaluation))</li> </ul>									
<b>Discussion about Results</b>	<ol style="list-style-type: none"> <li>1. Kick off Test resulted in ~30% reduction in time (Target was 60%, so more work to do)</li> <li>2. Test positives were: <ol style="list-style-type: none"> <li>a. Organized Kick-off resulted in clear assignment and organization of review team.</li> <li>b. Review and Comment guidance provided expectations and improved comment quality and timeliness.</li> </ol> </li> <li>3. Test Negatives were: <ol style="list-style-type: none"> <li>a. Excel based review and comment form was unsuccessful. Complicated or unusable for some reviewers.</li> <li>b. Under utilization of program specialists – An organized initial review did not occur so the results of the initial review were minimal at the kick-off.</li> <li>c. Comment consolidation – Excel based comments significantly impacted timeliness and under utilization of program specialists resulted in document lead and project manager expending significant time in comment consolidation and issue resolution.</li> </ol> </li> <li>4. Future RCR will be a standard WORD based document. A potential database (or other solution) will require IT support.</li> <li>5. Future enhancements to the kick-off will include more robust initial review and better utilization of program specialists.</li> <li>6. Document review and comment procedures now provide direction and expectations for all reviewers to follow.</li> <li>7. All improvement ideas for this LEAN project have been addressed and the program is ready to implement with the next major RI/FS document to be received.</li> </ol>									
<b>Future Action Plan (Milestones)</b>	<b>What?</b>					<b>Who?</b>			<b>When?</b>	
	<p>As the kick-off meeting test was winding down, we held a “future state” workshop to begin addressing remaining items in a more standard methodology.</p> <p>One more workshop session will be held in May to incorporate changes resulting from the kick off test and to address all remaining</p>					<p>Nina and Cheryl with Steve’s help.</p>			<p>Complete</p>	

	process improvements.		
	<b>Comment Resolution</b> – Initial efforts on this area were included in the Kick-off test. More items from our list were addressed in our future state and follow up work.	Nina and Cheryl with Steve’s help	Complete
	<b>Initial Review</b> – Initial efforts on this area were included in the Kick-off test. More items from our list were addressed in a future test and follow up work.	Nina and Cheryl with Steve’s help	Complete
	<b>Pre-document preparations</b> – Initial efforts on this area were included in the Kick-off test. These items are satisfactory for now.	Nina and Cheryl	Complete
	<b>Improvement Suggestions outside scope</b> – A number of good suggestions for improvement were outside the scope of our Lean event. NWP will pursue those by engaging USDOE and/or EPA to improve Tri-Party performance. These may or may not be “Lean” interactions depending on the other two agencies, but the Lean event will provide useful information to support our requests for improvement.	Jane, Cheryl, and Steve	TBD